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RIGHT, LEFT, SURROUND AND  
CENTER CHANNEL IN-WALL LOUDSPEAKER

**LST-RLS/CTR**

# **LST-RLS/CTR**

RIGHT, LEFT, SURROUND AND CENTER IN-WALL LOUDSPEAKER

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## FEATURES: LST-RLS

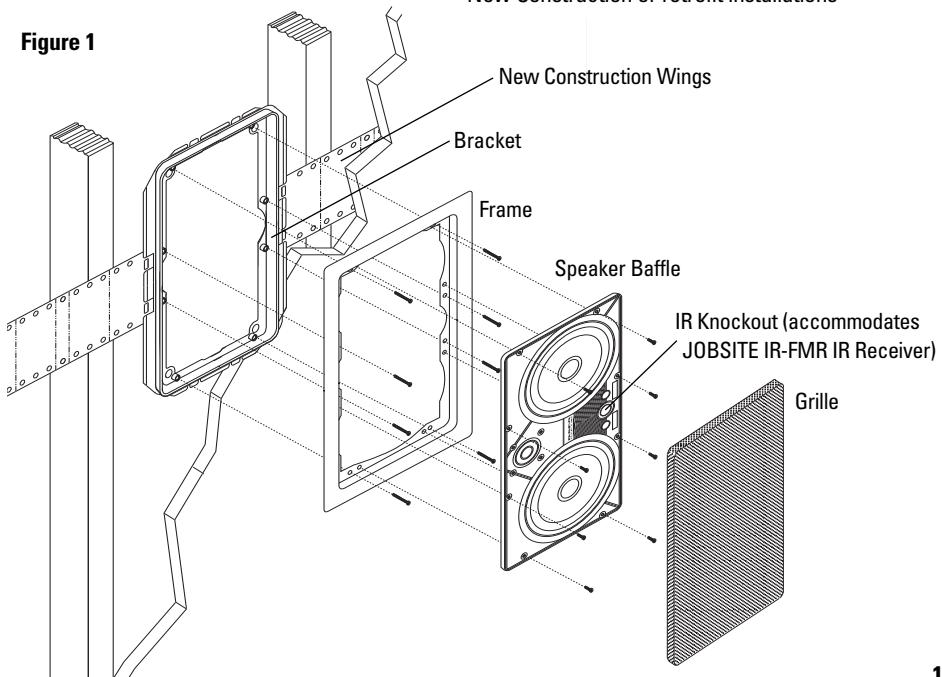
- Dual 5-1/4" mica filled polypropylene woofers with butyl rubber surrounds
- 1" liquid cooled ElastoDynamic® dome tweeter
- Front mounted bass and treble cut switches (-3dB)
- Configurable as a main or surround speaker
- Rigid braced ABS speaker baffle
- Moisture and UV resistant
- Rust proof aluminum grille

### Installation friendly design:

- Suitable for painting
- Connection terminals accept up to 12 gauge speaker wire
- Includes system mounting hardware for New Construction or retrofit installations

## PRODUCT OVERVIEW

Figure 1



## FEATURES: LST-CTR

- Dual 5-1/4" magnetically shielded mica filled polypropylene woofers with butyl rubber surrounds
- 1" liquid cooled magnetically shielded ElastoDynamic® dome tweeter
- Front mounted dialog enhancement switch
- Front mounted treble cut switch (-3dB)
- Crossover mounted Off-Axis compensation (OAC) switch
- Rigid braced ABS speaker baffle
- Moisture and UV resistant
- Rust proof aluminum grille

### Installation friendly design:

- Suitable for painting
- Connection terminals accept up to 12 gauge speaker wire
- Includes system mounting hardware for New Construction or retrofit installations

## PACKAGE CONTENTS

- Speaker x 1
- Speaker frame x 1
- Speaker grille x 1
- Speaker bracket x 1
- Wings for new construction x 2
- #6 x 1-5/8" Philips head drywall screws x 14
- Speaker cutout template x 1

## PREPARING FOR INSTALLATION

If you are installing LST speakers into an existing wall, take time to consider any possible obstructions, which may be hidden inside the wall: studs, electrical wiring, telephone wiring, plumbing, AC or heating conduit and ductwork.

Determine the best mounting locations based on the room layout. Before cutting any holes, make sure the area behind both speakers is clear for installation. Speakers provide the best coverage, when centered in the wall. Choose a suitable mounting height, and then line up both speakers approximately the same distance from the sidewall and ceiling boundaries.

If you are installing the speakers into a new construction wall, follow the above recommendations and install the new construction speaker bracket.

Label the speakers wires at the amplifier location.

## TOOLS REQUIRED

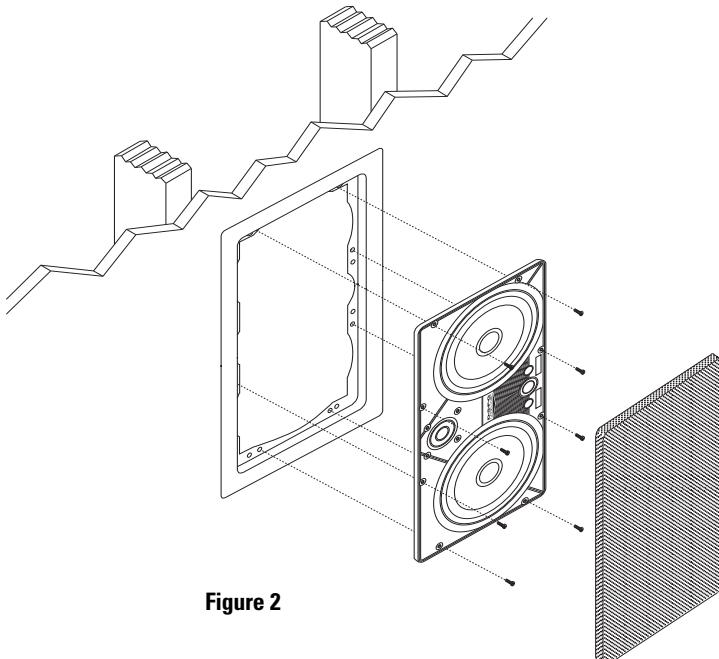
- Stud Locator (for existing construction)
- Drywall saw (for existing construction)
- Pencil (for existing construction)
- Cordless screwdriver with No2 Philips bit
- 1/8" Slotted screwdriver x 2
- Wire stripper
- Wire labels

## INSTALLATION

### Installation Existing Construction:

1. Using your stud locator, identify the location of the studs on each side of the proposed speaker mounting location.
2. Mark their edges, using masking tape.
3. Repeat this process for the other speakers.
4. You may have to adjust the speaker mounting locations based on how symmetrical the studs are located, in the wall space.
5. Check for clearance using the following method.
  - a. Drill a 1/4" pilot hole in the center of the intended speaker location.
  - b. Cut a foot-long piece of coat hanger.
  - c. Bend the wire, creating a right angle, leaving 4-1/4" at one end.
  - d. Poke the "L-shaped" wire into the pilot hole and turn it in a complete circle, checking for obstructions.
  - e. Push it into the wall cavity to make sure you have approximately 4" of depth.
  - f. If the coat hanger movement is obstructed by anything, fill the hole(s) with spackle and try another location

6. Locate the cutout template.
7. Use a pencil and the cutout template to trace the speaker outline in the desired locations on the wall.
8. Use a drywall saw to cut along the penciled line.
9. Slip the mounting bracket through the opening and pull it toward you so that its front edge slides into the hole and stops in place.
10. Attach the frame to the bracket by screwing the frame to the bracket using the supplied screws. **NOTE: Do not over tighten the screws, this will distort the frame and the grille will not fit.**
11. The screws should pull the frame and bracket together (sandwiching the drywall) so that the frame is flush with the wall surface.
12. Strip 1/4" of insulation from the end of each wire.
13. Tightly twist the end of each wire until no frayed ends remain.
14. Attach the speaker wires to the speaker terminal connectors. Connect the negative output from the amplifier to the black terminal. Connect the positive output from the amplifier to the red terminal.
15. Set the speaker configuration switches on the rear of the speaker (see Setting the Speaker Configuration Settings).
16. Install the speaker in the frame. Screw the enclosed self-tapping screws into the dimples of the speaker baffle as shown in Figure 2.
17. Repeat steps 1-16 for each speaker being installed.
18. After making tonal adjustments on all speakers (see Setting the Speaker Configuration Settings), install the grill into the speaker.



**Figure 2**

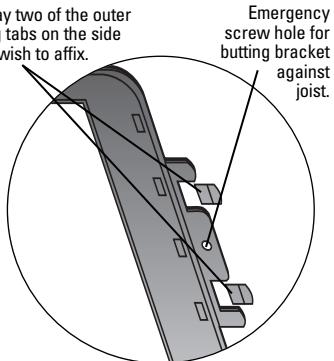
## Installation New Construction:

The speaker brackets should be installed prior to the drywall.

1. Attach the wings to the bracket by snapping them into the sides of the bracket. (See Figure 1). To shorten the wings, break them along the scored lines.
2. The wings and brackets have centering lines to simplify placement of the speaker.
3. Use a tape measure to locate and center the brackets in the ceiling.
4. Mark each speaker location with a pencil.
5. Screw one side of the assembled bracket with wings to the joist using one of the supplied screws.
6. Screw the other side of the bracket/wing assembly to the joist. Two screws on each side make for a very secure installation.
7. Secure the wire to the bracket using the bracket's wire tie.
8. In unique situations where the bracket must be located precisely next to a joist, the bracket has "emergency" screw holes located on its snap-on tabs. Break away two of the outer mounting tabs on the side you wish to affix, see Figure 3. Notching the joist so the bracket lies flush may be required.
9. Next, screw the bracket tab to the joist using one of the supplied screws.  
**Important:** Do not over-tighten the screw, doing so could crack the bracket tab.  
Level the bracket, then affix the other side of the bracket assembly using the supplied screws.
10. After the drywall is installed, cut a hole in the drywall using the outside of the circular bracket flange as a template.
11. Attach the frame to the bracket by screwing the frame to the bracket using the supplied screws. **NOTE: Do not over tighten the screws, this will distort the frame and the grille will not fit.**

**Figure 3**

Break away two of the outer mounting tabs on the side you wish to affix.



12. The screws should pull the frame and bracket together (sandwiching the drywall) so that the frame is flush with the wall surface.
13. Strip 1/4" of insulation from the end of each wire.
14. Tightly twist the end of each wire until no frayed ends remain.
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18. Repeat steps 1-17 for each speaker being installed.
19. After making tonal adjustments on all speakers (see Setting the Speaker Configuration Settings), install the grill into the speaker.

## **SETTING THE SPEAKER CONFIGURATION SETTINGS**

### **Crossover Mounted Switches**

#### **LST-CTR OAC Switch**

The crossover on the back of the LST-CTR enables you to defeat the Off-Axis Compensation (OAC) feature. Defeat OAC when the speaker is mounted at ear level directly in front of the primary listening position, as would be the case when the speaker is mounted behind a perforated projection TV screen.

#### **LST-RLS Main/Surround Switch**

The crossover on the back of the LST-RLS enables you to configure the speaker for best performance as either a front "main" speaker or rear "surround" speaker. When the LST-RLS is used as a surround speaker, set the switch to the "Surround" position to provide a diffuse sound field which provides a more convincing illusion of sound all around the listener. When configured as a surround speaker, the orientation of the tweeter is no longer critical.

### **Front Baffle Switches**

#### **LST-CTR Acoustic Fine Tuning**

The front-mounted switches on the LST-CTR enable the speaker to be optimized regardless of positioning or room acoustics by providing 3dB of Treble Cut and 3dB of Dialog Enhancement. Start by listening to the speaker in the normal mode (switch is in the "out" position). If the sound seems to have too much treble, depress the switch labeled Treble Cut to reduce the amount of high frequencies.

If you desire to make dialog more pronounced, depress the switch labeled Dialog Enhance.

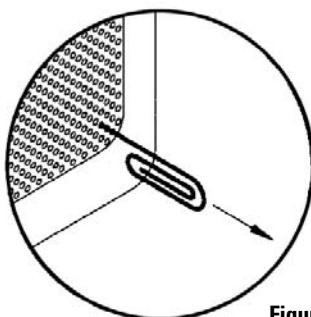
#### **LST-RLS Acoustic Fine Tuning**

The front-mounted switches on the LST-RLS also enable the speaker to be optimized regardless of positioning or room acoustics. They provide 3dB of Treble and Bass Cut respectively. Start by listening to the speaker in the normal mode (switch is in the out position). If the sound seems to have too much treble, depress the switch labeled Treble Cut to reduce the amount of high frequencies. If the sound has too much low frequency output (because it is placed near a corner perhaps) depress the switch labeled Bass Cut.

## **REMOVAL OF GRILLE**

### **Removing the Grille**

If the grille is already installed, remove it by using a bent paper clip or the tip of a corkscrew and pulling it away from the frame. **See Figure 4.**



**Figure 4**

## **PAINTING THE GRILLE AND FRAME**

### **Painting the Speaker Frame**

The speakers must be removed prior to painting the frames.

### **Painting the Grilles:**

The grilles should be painted before they are installed on the speakers. The best results will be obtained by using a spray gun or airless sprayer. Thin the paint, and then apply several light coats. This technique helps prevent clogging of grille holes. Paint both sides of the grille to cover all the white paint.

## **OPERATION**

### **Listening at Higher Volumes:**

Listening at Higher Volumes:

It requires more power to achieve a reasonable volume of sound in a large room than it does in a small room. It is possible to turn the volume so high that the amplifier runs out of power. This creates "clipping" distortion.

Clipping distortion makes treble sound very harsh and unmusical. When you hear harsh sounding treble from any good speaker, turn the volume down immediately! You are much less likely to damage a speaker with a large amplifier less likely to produce any clipping distortion.

## **SPECIFICATIONS: LST-RLS**

**Power handing:**

10 – 150 watts

**Frequency response:**

45Hz-21kHz +/- 3dB

**Impedance:**

8 ohms

**Dimensions:**

8-1/4" x 14-1/2" outside dimension

7-1/8" x 13-1/4" hole cutout

3-1/8" deep when installed in 1/2" drywall

**Warranty:**

5 year limited

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**Frequency response:**

45Hz-21kHz +/- 3dB

**Impedance:**

8 ohms

**Dimensions:**

8-1/4" x 14-1/2" outside dimension

7-1/8" x 13-1/4" hole cutout

3-1/8" deep when installed in 1/2" drywall

**Warranty:**

5 year limited

## **LIMITED WARRANTY**

JobSite Systems ("JOBSITE"), a Niles Audio Corporation company, warrants its passive products (those not requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of ten years from date of purchase.

JOBSITE warrants its passive loudspeaker products (those not requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of five years from date of purchase.

JOBSITE warrants its indoor/outdoor loudspeaker products to the original purchaser to be free of manufacturing defects in material and workmanship for a period of two years from date of purchase.

JOBSITE warrants its all weather rock loudspeaker products to the original purchaser to be free of manufacturing defects in material and workmanship for a period of five years from date of purchase.

JOBSITE warrants its active products (those requiring AC or battery power) to the original purchaser to be free of manufacturing defects in material and workmanship for a period of two years from date of purchase.

This Warranty is subject to the following additional conditions and limitations. The Warranty is void and inapplicable if JOBSITE deems that the product has been used or handled other than in accordance with the instructions provided by the manufacturer, including, but not limited to, damage caused by accident, mishandling, improper installation, abuse, negligence, or normal wear and tear, or any defect caused by repair to the product other than by JOBSITE or an authorized JOBSITE wholesale distributor.

To obtain warranty service, you must write to JOBSITE: Include your name, address, telephone number, model number and serial number of your unit, and a brief description of the problem.

A factory Return Authorization Number will be sent to you. DO NOT RETURN ANY UNIT WITHOUT FIRST RECEIVING WRITTEN AUTHORIZATION AND SHIPPING INSTRUCTIONS FROM JOBSITE.

If the above conditions are met, the purchaser's sole remedy shall be to return the product to JOBSITE, in which case JOBSITE will repair or replace, at its sole option, the defective product without charge for parts or labor. JOBSITE will return the unit repaired or replaced under warranty by shipping it by its usual shipping method from the factory (only) at its expense within the United States of America. THERE ARE NO OTHER WARRANTIES, INCLUDING, WITHOUT LIMITATION, EITHER EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT.

REPAIR OR REPLACEMENT AS PROVIDED UNDER THIS WARRANTY IS THE EXCLUSIVE REMEDY OF THE CONSUMER/PURCHASER. JOBSITE SHALL NOT BE RESPONSIBLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES EXCEPT TO THE EXTENT PROVIDED (OR PROHIBITED) BY APPLICABLE LAW.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation may not apply to you. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

For the name of the nearest authorized JOBSITE wholesale distributor, contact:

JobSite Systems, a Niles Audio Corporation company

P.O. Box 160818, Miami, Florida 33116

**NOTES:**



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